

# **Guidelines for the Assessment and Educational Evaluation of Deaf and Hard-of-Hearing Children in Indiana**

Based on 511 IAC Article 7, 2008

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This document is dedicated to all deaf and hard-of-hearing children in Indiana and their families. Since 1843, deaf and hard-of-hearing children have been educated in this state and many leave our schools, go out into the world, and become productive citizens. Some children in the past have not been so fortunate and may not have left the educational system with the knowledge and tools to maximize their potential. This guide was developed to help educators use assessment information and evaluations to assist parents and the case conference committees in determining how a child can reach their full potential. Advances in technology, as well as greater knowledge of how the brain functions and how language is acquired, have helped the professionals who work with this population provide information that will lead to informed decision making.

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*Guidelines for the Assessment and Educational Evaluation of Deaf and Hard-of-Hearing Children in Indiana*, based on the Article 7 changes of 2008, was developed by Outreach Services for Deaf and Hard-of-Hearing Children. The staff includes diverse professionals and parents including those who are Deaf, hearing, and hard-of-hearing; those raised in environments using spoken English; and others, who grew up as proficient users of American Sign Language (ASL) in the Deaf community. This guide represents a consensus of this diverse population. Comments or questions regarding these guidelines may be addressed to Cindy Lawrence, Assessment Coordinator, Center for Deaf and Hard of Hearing Education, 2 North Meridian (mailing address) or 1200 E 42<sup>nd</sup> Street, Indianapolis, Indiana 46205, 317-232-0899, [clawrence@isdh.in.gov](mailto:clawrence@isdh.in.gov).

#### **Notice**

The guidance in *Guidelines for the Assessment and Educational Evaluation of Deaf and Hard-of-Hearing Children in Indiana, Based on 511 IAC Article 7, 2008*, is not binding on local educational agencies or other entities. Except for the statutes, regulations, and court decisions that are referenced herein, the document is exemplary, and compliance with it is not mandatory.

## Contents

Preface	4
Educational Evaluation Guidelines	8
Persons Conducting the Educational Evaluation	9
Areas That May Be Educationally Evaluated	10
Auditory Abilities and Skills	10
Determination of Communication Mode	11
Pre-academic Skills	16
Academic Skills	17
Motor Skills	17
Areas of Psychological Evaluation	18
Tests Administered in the Primary Language and Preferred Language Mode	20
Statewide Resources and Services for D/HOH Students in Indiana	21
Appendices	23
Making Progress: The One-for-One Rule	23
Glossary	24
Selected References	36
Checklist of Evaluation Procedures	37

## PREFACE

All children have the right to a *free appropriate public education* (FAPE) in their *least restrictive environment* (LRE) in order to have the opportunity to succeed. An educational evaluation of a child's strengths and areas needing improvement provide professionals with the insight needed to allow for that success.

In July of 2008, Governor Mitch Daniels signed into law revisions in Indiana State Board of Education Special Education Rules Title 511 Article 7, the state agency version of Indiana's special education rules promulgated in the Indiana Administrative Code at 511 IAC 7-17 through 7-31. Changes were made in the eligibility requirements in order to look at evaluation data most impacted by the child's "disability." Cognitive evaluations are no longer required for the over 2000 deaf or hard-of-hearing students in the state of Indiana. It is generally known that absence of hearing does not cause cognitive delays. However, professionals and families must keep in mind that a lack of exposure to language early in life can effect cognitive functioning.

The Universal Newborn Hearing Screening (UNHS) legislation enacted in 2000 also created the opportunity for very early identification of hearing loss in infants, leading to earlier opportunities for parent support and the development of communication and language. Children who were identified and received appropriate early intervention are arriving in our schools with language and communication commensurate with their hearing peers. Prior to 2000, the average age of diagnosis was 2.5 years of age, leading most educators to spend the early years focusing on closing a huge language gap. While not every child is identified early and begins receiving early intervention, that is our goal for all children.

For parents and *local education agencies* (LEAs) of some children, the good news is that there is now a certain degree of flexibility in meeting the needs of individual students. No longer will a child who is performing well academically be subjected to unnecessary testing.

The caveat is that many students do not perform as well as we would anticipate, and they will continue to need a comprehensive evaluation in order to develop specific, appropriate academic goals that are unique to each student. Perhaps an additional concern, such as a learning disability or emotional challenges, interferes with the child's learning. Without looking at the child as a whole, academic and methodology decisions could easily be based solely on a child's audiogram and communication skills. Parents and professionals need to

remember to include a child's cognitive potential, thinking skills, preferred mode of communication, learning style, and academic abilities when making these critical decisions. The child's cultural background must also be considered. It is in this way that we can raise the bar for academic success, and the child can be expected to meet their full potential.

**The changes in Article 7 do not mean that the educational evaluation is limited to what CAN be done, rather just what is REQUIRED to be done.**

The following definitions of assessment and educational evaluation are taken from the newest version of Article 7.

**Assessment defined (511 IAC 7-32-6, Section 6):**

- a) **Assessment** refers to the process of **gathering and interpreting information** regarding some aspect of a student's:
  - 1) cognitive,
  - 2) academic,
  - 3) social,
  - 4) emotional,
  - 5) behavioral, or
  - 6) functional performance
- b) **Norm-referenced assessments** are standardized on a clearly defined group and scaled so that the score reflects the student's performance when compared to the normative group.
- c) **Criterion-referenced assessments** are:
  - 1) designed to determine whether a student has reached a pre-established level or standard of performance; and
  - 2) are generally developed with a hierarchy of skills.
- d) **Other assessment procedures** include, but are not limited to, the following:
  - 1) samples of academic skills
  - 2) behavioral charts
  - 3) informal tests
  - 4) interviews
  - 5) observations

**Educational Evaluation** (511 IAC 7-32-30, Section 30) defined:

- a) **Educational evaluation** means procedures used in accordance with 511 IAC 7-40 and 511 IAC 7-41 to provide information about a student's disability or suspected disability for the student's case conference committee to determine the following:
  - 1) whether a student is eligible for special education and related services
  - 2) if eligible, the nature and extent of the special education and related services that the student needs
- b) Based on the suspected disability or disabilities, the educational evaluation may address the following:
  - 1) development
  - 2) cognition
  - 3) academic achievement
  - 4) functional performance or adaptive behavior
  - 5) communication skills
  - 6) motor skills and sensory responses
  - 7) available medical and mental health information that is educationally relevant
  - 8) social and developmental history
  - 9) analysis of other factors
  - 10) other assessments or information necessary to determine eligibility and inform the student's case conference committee.

**Deaf or Hard-of-Hearing** (511 IAC 7-41-4) defined:

- a) "Deaf or hard-of-hearing," which may be referred to as a hearing impairment, means the following:
  - 1) a disability that, with or without amplification, adversely affects the student's:
    - A) ability to use hearing for developing language and learning,
    - B) educational performance
    - C) developmental progress
  - 2) the hearing loss may be:
    - A) permanent or fluctuating
    - B) mild to profound
    - C) unilateral or bilateral

3) students who are deaf or hard-of-hearing may use:

- A) spoken language,
- B) sign language
- C) a combination of spoken language and signed systems

According to Rule 26, certain eligibility components are minimally required to be synthesized in an educational evaluation for each suspected area of eligibility. For a child with a hearing loss, the following is required:

- assessment of academic achievement, defined by 511 IAC 7-32-6
- evaluation of functional skills or adaptive behavior across various environments and from multiple sources
- evaluation of communication skills
- completion of a social and developmental history
- written report from an educational or clinical audiologist, otologist, or otolaryngologist
- any other educational evaluations or information necessary to determine eligibility and inform the case conference committee

The first five components are included with the initial eligibility determination. The last component may be the most overlooked, as well as the most critical. This provides for the educational evaluation of areas that are most relevant for students who are deaf or hard-of-hearing, such as development, cognition, motor, and sensory abilities, and obtaining relevant medical information. In order to determine if the language and communication skills are commensurate with their cognitive abilities, especially for children identified early, information regarding cognitive potential is important. Because of the particularly high incidence (40 to 50 percent) of accompanying exceptionalities, it is especially important that attention be given to these areas as well.

The information that follows is a collection of suggestions for parents and LEAs to use in determining what should be included in an educational evaluation procedure and how it should be completed for their children who are deaf or hard-of-hearing.

## EDUCATIONAL EVALUATION GUIDELINES

Assessment does not necessarily mean testing. It can mean reviewing the data that is already available, such as results from ISTEP, ISTAR, SAT-10, and the NWEA, as well as curriculum-based assessments and curriculum-based measurements to determine what information is already available and what additional information, if any, might be needed.

In looking at each student as a whole and attempting to meet their unique needs as an individual, their *individualized education plan* (IEP) is developed following the determination of their present level of functioning. As part of this educational evaluation process, the following areas should be recognized, as well as how they interact with each other:

- primary language and preferred mode of communication
- family history, including home language, cultural factors, and hearing status of family members
- health and developmental history, including etiology of the hearing loss
- age of onset and age of diagnosis
- age of full-time amplification
- type and severity of hearing loss
- effectiveness of amplification
- auditory skills and use of residual hearing
- psychosocial behaviors
- visual skills
- educational history
- additional special education eligibilities
- parent knowledge and support
- attitude and motivation level of the student

The importance of parental involvement during the educational evaluation process is critical. Language use is a family decision and drives communication choices in Part C (First Steps). It is crucial in obtaining both the quantity and quality of information required to make the best educational and communication decisions for children who are deaf or hard-of-hearing.



The younger the child is, the more instrumental the parents are in the process. Therefore, parents should be included in the following components:

- gathering educational information
- describing the child's strengths, weaknesses, and interests
- providing insight into the child's temperament
- behavioral observations
- interviews
- medical and audiological histories
- play-based evaluations
- developmental scales
- situational educational evaluations for transition (e.g., work experience and education)
- independent living skills educational evaluation
- assistive technology educational evaluations
- collecting other information (e.g., grades and portfolios)

## **PERSONS CONDUCTING THE EDUCATIONAL EVALUATION**

In addition to parental input, the educational evaluation of deaf and hard-of-hearing students must be conducted by personnel who understand the unique nature of hearing loss and are specifically trained to work with deaf and hard-of-hearing students. Background knowledge includes research, technological innovations, language and child development, diversity within the Deaf community, and resources for families and professionals. Personnel should be skilled in administering the educational evaluation tools and in interpreting the results to ensure nondiscriminatory testing; they should have the requisite communication skills. Personnel administering evaluation tools must be able to communicate in the child's native language or mode of communication. This is essential in making collaborative and informed decisions about the educational needs for students with hearing loss.

Recommendations should be based on the results of the educational evaluation as they relate to the impact of hearing on communication, language, literacy, social-emotional behaviors, and academic competency.

A multi-disciplinary educational evaluation may include the following licensed personnel, as appropriate:

- teacher of deaf and hard-of-hearing students
- school psychologist
- audiologist
- speech-language pathologist
- American Sign Language (ASL) specialist
- general education teacher
- early childhood specialist
- occupational therapist
- physical therapist

## AREAS THAT MAY BE EDUCATIONALLY EVALUATED

When providing the educational evaluation of a deaf or hard-of-hearing student, the following areas should be considered:

### **Auditory Abilities and Skills**

An audiological evaluation should provide necessary information regarding the integrity of the structures of the ear, a child's hearing ability for pure tones and speech stimuli, auditory skills development, appropriate use of and benefit from technology, and specifics related to performance in a typical classroom. An audiological evaluation should include assessment under ideal testing conditions as well as under simulated classroom conditions.

Children with cochlear implants should be evaluated along the same continuum of communication used with all deaf and hard-of-hearing children. While they may have substantial access to sound, children with cochlear implants will have varying abilities in understanding sound for the purpose of learning. The evaluation of a student with a cochlear implant requires looking at the whole child and obtaining information that will ensure an appropriate educational placement. The team evaluating these students should not lose sight of the overall needs of the student and focus only on the device. While listening age may be a useful tool to determine auditory goals, the overall language and academic skills of a student should be compared with their chronological age and with hearing peers. Expectations based on listening age may lower standards of performance.

The following areas may be included in the audiological evaluation:

- developmental and medical history
- otoscopic examination
- evaluation of middle ear functioning
- pure tone air and bone conduction thresholds
- speech reception thresholds (SRT), with and without technology
- word recognition scores (WRS), in quiet and in noise, with and without technology
- automatic brainstem response/brainstem evoked response (ABR/BSER) testing
- otoacoustic emissions (OAEs)
- tests of auditory skills development, some examples of which are:
  - *Test of Auditory Comprehension (TAC)*
  - *Functional Auditory Performance Indicators (FAPI)*
  - *The Infant-Toddler Meaningful Auditory Integration Scale (IT-MAIS)*
  - *Early Speech Perception Test (ESP)*
  - *Listening Inventory for Education (L.I.F.E.)*
  - *Screening Instrument for Targeting Educational Risk (S.I.F.T.E.R.)*
- electroacoustic analysis of hearing aids
- electroacoustic analysis of hearing aids coupled to FM systems
- real-ear measurements with amplification
- optimal aided thresholds with cochlear device(s)

## **Determination of Communication Mode**

The determination of how a family and child will communicate when there is a hearing loss present is a critical decision. A combination of audiological test results and a speech and language evaluation will be crucial in providing information to guide informed decision making in this area. Evaluation in these domains should provide guidance in determining:

- if hearing levels (with or without hearing aids or cochlear implants) will allow a child sufficient access to learn language through audition in a manner and time-frame that will allow for communicative competence; and
- whether additional visual supports, in the form of sign language, will enhance a child's potential to access language in a time frame and manner that will allow for communicative competence.

A language evaluation, whether signed, spoken, or written, should be a comprehensive evaluation of language skills in all the following areas:

*Articulation:* the student's ability to form and produce words or signs accurately and their ability to improve production with feedback

*Semantics:* vocabulary mastery and understanding multiple meanings and basic concepts, both receptively and expressively. (Semantics may also include comprehension of situational concepts and contexts.)

*Syntax:* receptive and expressive abilities in the use of word order and morphemes to create grammatically correct sentences

*Morphology:* receptive and expressive abilities to use affixes and inflections to change the meanings of spoken words or signs (e.g., to pluralize, to show verb tense, or to show intensity or duration)

*Pragmatics/Discourse:* the ability to use language for interpersonal communicative purposes (e.g., turn-taking skills, use of language to express one's needs, use of language to influence another's behavior, and use of language to refer to experiences out of the immediate context). Discourse includes the ability to express language in social situations; formal scholastic situations, such as debates or presentations; and narrative skills (i.e., telling or re-telling stories).

*Thinking and Reasoning Skills:* the ability to use language for thinking, reasoning solutions, making inferences, problem solving and, in general, to exhibit a cognitive-academic language proficiency. These skills are of primary importance in the educational evaluation of a child for the purposes of predicting school success.

An educational evaluation of the student's sign language communication and/or potential leads to the development of a more comprehensive decision regarding an effective instructional program. Forms of sign language communication may include, but are not limited to:

*American Sign Language (ASL):* a visual/gestural language used by deaf people in the United States and Canada with semantic, syntactic, morphological, and phonological rules that are distinct from English

*English Sign Systems*: sign systems developed for educational purposes that use manual signs in an English word order, sometimes with added affixes (that are not present in ASL). Some of the signs are borrowed from ASL, and others have been invented to visually represent elements of English. Signing Exact English (S.E.E.) and Manually Coded English (M.C.E) are two examples of systems used with the English language.

For a deaf or hard-of-hearing student who uses speech, a spoken communication educational evaluation includes an evaluation of the student's ability to use speech and speechreading skills to communicate orally in English or in combination with signs.

An evaluation of speech production includes the testing and gathering of information in the following areas:

- phonological educational evaluation: voice, manner, placement, syllabication, stimulability, and reception of speech sounds
- prosodic features: intonation, pitch, rhythm, and stress
- voice quality, including nasality
- intelligibility of connected speech
- semantic and grammatical accuracy
- pragmatics/discourse
- self-advocacy and independence with communication
- cognitive academic language proficiency (CALPs)
- thinking and reasoning skills

The educational evaluation of receptive skills may include gathering information about the student's ability to:

- attend to the speaker and sustain attention over time
- perceive speech sounds or elements
- use functional listening skills in academic situations
- put words and phrases into meaningful context
- use language for thinking
- use language for academic tasks
- acknowledge a need to self-advocate for personal communication needs

The deaf or hard-of-hearing child's performance on the spoken communication educational evaluation provides information regarding the child's ability to benefit from amplification or other assistive listening technology and indicates whether the child needs the added support of sign, vibrotactile techniques, or a combination of supports. This evaluation

may also include an informal assessment of the child's ability to care for and maintain his/her hearing aids or other assistive listening device.

The following list of instruments for the evaluation of speech and language skills is intended to serve as a guide for the speech and language evaluations. It is not an exhaustive list.

Determination of Communication Mode	
Areas of Assessment	Assessment Tools
<b>Auditory Perception:</b> the ability to recognize and understand what is heard	<ul style="list-style-type: none"> <li>• daily Ling tests</li> <li>• <i>Early Speech Perception Test (ESP)</i></li> <li>• <i>Functional Auditory Performance Indicators (FAPI)</i></li> <li>• <i>Infant–Toddler Meaningful Auditory Integration Scale (IT-MAIS)</i></li> <li>• informal evaluation</li> <li>• <i>Listening Comprehension Test 2</i></li> <li>• <i>Listening Inventory for Education (L.I.F.E.)</i></li> <li>• optimal aided thresholds (with cochlear device)</li> <li>• real-ear measurements (with amplification)</li> <li>• <i>Screening Instrument for Targeting Educational Risk (S.I.F.T.E.R.)</i></li> <li>• spondee thresholds/speech reception thresholds (SRT), with and without technology</li> <li>• <i>Test of Auditory Comprehension (TAC)</i></li> <li>• <i>Test of Auditory Processing Skills 3</i></li> <li>• word recognition scores (WRS), in quiet and in noise; with and without technology</li> </ul>
<b>Articulation and Speech Production:</b> the ability to form and produce words or signs accurately and the ability to improve production with feedback, including prosodic features (i.e., intonation, pitch, rhythm, and stress), voice quality (including nasality), and the intelligibility of connected speech	<ul style="list-style-type: none"> <li>• <i>CID Picture Spine</i></li> <li>• <i>Clinical Assessment of Articulation and Phonology (CAAP)</i></li> <li>• <i>Goldman-Fristoe Test of Articulation</i></li> <li>• informal evaluation</li> <li>• <i>Phonological Awareness Test</i></li> </ul>
<b>Semantics:</b> vocabulary mastery and the ability to understand multiple meanings and basic concepts, both receptively and expressively. Semantics may also include comprehension of situational concepts and contexts.	<ul style="list-style-type: none"> <li>• <i>Clinical Evaluation of Language Test of Language Competence, Level 1 and Level 2</i></li> <li>• <i>Comprehensive Assessment of Spoken Language (CASL)</i></li> <li>• <i>Comprehensive Receptive and Expressive Vocabulary 2</i></li> <li>• <i>Expressive Vocabulary Test</i></li> <li>• <i>Clinical Evaluation of Language Fundamentals, 4 (CELF-4)</i></li> <li>• informal evaluation</li> <li>• <i>Language Processing Test 3, Elementary</i></li> </ul>

	<ul style="list-style-type: none"> <li>• language sample analysis</li> <li>• <i>Listening Comprehension Test 2</i></li> <li>• <i>Peabody Picture Vocabulary Test (PPVT)</i></li> <li>• <i>Test of Adolescent and Adult Language</i></li> <li>• <i>Test of Early Language Development</i></li> <li>• <i>Test of Language Development, Primary, Fourth Edition (TOLD-P:4) and Test of Language Development: Intermediate, Fourth Edition (TOLD: I-4)</i></li> <li>• <i>Test of Semantic Skills, Primary and Intermediate</i></li> <li>• <i>Wigg Evaluation of Basic Concepts</i></li> <li>• <i>Word Test and Word Test 2</i></li> </ul>
<p><b>Syntax:</b> receptive and expressive abilities in the use of word order and morphemes to create grammatically correct sentences.</p>	<ul style="list-style-type: none"> <li>• <i>Clinical Evaluation of Language Fundamentals, 4 (CELF-4)</i></li> <li>• <i>Comprehensive Assessment of Spoken Language (CASL)</i></li> <li>• informal evaluation</li> <li>• Oral and Written Language Scale (oral scale, ages 3–2; written scale, ages 5–21)</li> <li>• <i>Test of Auditory Comprehension (TAC)</i></li> </ul>
<p><b>Pragmatics and Discourse:</b> the ability to use language for self-advocacy and independence; the ability to hold a socially appropriate conversation at the basic interpersonal level as well as the abstract, complex level</p>	<ul style="list-style-type: none"> <li>• <i>Functional Communication Profile (ages 3–adult)</i></li> <li>• informal evaluation</li> <li>• language sample analysis</li> <li>• <i>Pragmatic Language Skills Inventory (PLSI)</i></li> <li>• <i>Social Language Development Test</i></li> <li>• <i>Test of Narrative Language</i></li> </ul>
<p><b>Thinking and Reasoning:</b> the ability to use language to reason solutions, solve problems, and other executive function skills that include, but are not limited to: organization, abstract concepts, humor, planning, attention, and memory</p>	<ul style="list-style-type: none"> <li>• <i>Adolescent Test of Problem Solving</i></li> <li>• informal evaluation</li> <li>• language sample analysis</li> <li>• <i>Listening Comprehension Test 2</i></li> <li>• <i>Preschool Language Scale 4</i></li> <li>• <i>Ross Information Processing Evaluation, Primary &amp; 2</i></li> <li>• <i>Test of Adolescent and Adult Language</i></li> <li>• <i>Test of Auditory Processing and Reasoning Skills</i></li> <li>• <i>Test of Auditory Processing Skills 3</i></li> <li>• <i>Test of Early Language Development</i></li> <li>• <i>Test of Language Competence, Level 1 and Level 2</i></li> <li>• <i>Test of Language Development, Primary, Fourth Edition (TOLD-P:4) and Test of Language Development: Intermediate, Fourth Edition (TOLD: I-4)</i></li> <li>• <i>Test of Problem Solving</i></li> <li>• <i>Test of Written Language—3</i></li> <li>• <i>Wigg Evaluation of Basic Concepts</i></li> <li>• <i>Woodcock-Johnson Tests of Achievement, Third Edition (WJ-III ACH)</i></li> <li>• written language samples</li> </ul>

<p><b>American Sign Language (ASL):</b> a visual/gestural language used by deaf people in the United States and Canada with semantic, syntactic, and morphological rules that are distinct from English</p>	<ul style="list-style-type: none"> <li>• <i>The MacArthur Communication Developmental Inventory: Shine Vocabulary Checklist, ASL Version</i></li> <li>• <i>The Toolkit: Starting with Assessment: A Developmental Approach to Deaf Children's Literacy</i></li> <li>• <i>Kendall Conversational Proficiency Level (KCPL)</i></li> <li>• <i>American Sign Language Proficiency Interview (ASLPI)</i></li> <li>• <i>ASL Development Checklist 0–5years</i></li> <li>• <i>The Listening Comprehension Test 2</i></li> <li>• <i>The Test of Problem Solving</i></li> </ul>
<p><b>English Sign Systems:</b> sign systems developed for educational purposes that use manual signs in an English word order, sometimes with added affixes (that are not present in ASL). Some of the signs are borrowed from ASL, and others have been invented to visually represent elements of English. Signing Exact English (S.E.E.) and Manually Coded English (M.C.E) are two examples of systems used with the English language.</p>	<ul style="list-style-type: none"> <li>• <i>Sign Language Proficiency Interview (SLPI)</i></li> </ul>

## Pre-Academic Skills

When making plans for the education of young deaf and hard-of-hearing children, a thorough evaluation of each student's currently measurable pre-academic skills is important. This evaluation is to be done by a teacher or other professional who is knowledgeable about early childhood education, in addition to hearing loss, and who is proficient in the child's primary language and language mode. For children with pre-academic skills, an evaluation of readiness skills (e.g., visual discrimination skills, identification of letters and numbers, identification of body parts, matching, predicting, sorting, and basic concepts) is important for developing IEP goals and objectives and for determining when the child is able to acquire age-appropriate standards leading to academic instruction.



## Academic Skills

Evaluation of academic skills should provide information regarding the student's present level of functioning in at least the following areas, as noted in *Deaf and Hard-of-Hearing Students Educational Service Guidelines* (2006):

- math computation and application in all contexts (e.g., measurement, money, time, etc.)
- reading comprehension (e.g., words, phrases, sentences, passages, literal/inferential skills)
- style of decoding (i.e., phonetic-acoustic versus visual decoding)
- reading in real-world versus reduced-context situations
- reading preferences, including time spent reading independently
- written English literacy including word use, knowledge conveyed, structure, and cohesiveness
- writing for specific purposes (e.g., messages, discourse, persuasion, narration, etc.)
- spelling and penmanship

Standardized evaluations of academic achievement may provide information regarding the student's achievement in comparison with that of hearing peers. It is important to consider the evaluation results in conjunction with other evaluation information (e.g., criterion-referenced educational evaluation, portfolio educational evaluation, etc.) when developing the individualized education program.

In addition to taking part in academic achievement testing for initial and additional evaluations, deaf and hard-of-hearing students participate in all age-appropriate statewide and local educational evaluation programs: ISTEP, ISTAR-KR, SAT-10, and NWEA—unless they qualify for ISTAR testing as determined by established criteria.

## Motor Skills

The evaluation of motor skills may be especially significant for deaf and hard-of-hearing students. Etiologies such as meningitis, rubella, and neurologically-based hearing loss may result in vestibular damage affecting an individual's equilibrium, body awareness, and visual-motor

functioning. If a student is referred for additional motor evaluation, it should be conducted by an occupational therapist or a physical therapist. Areas to be evaluated may include both fine- and gross-motor skills.

## **Areas of Psychological Evaluation**

A psychological evaluation includes the testing and interpretation of human development and learning domains (i.e., cognitive, achievement, adaptive behavior, emotional, social, behavioral, language, and perceptual-motor) within a collaborative, databased frame, respecting diversity of student strengths, needs, learning styles and cultures.

If a child is delayed in any area, a test of *intellectual functioning* may be conducted as part of the evaluation, if deemed appropriate by the team. An educational evaluation of *visual perceptual skills* is of great significance for a student with a hearing loss who relies heavily on the visual channel for communication. Early identification of areas of weakness is important. Areas to be evaluated include visual discrimination, visual memory, visual-motor integration, visual figure-ground, visual closure, and spatial relations.

*Adaptive behavior rating scales* may be used for deaf or hard-of-hearing children who are very young or who have multiple disabilities. Areas evaluated may include self-help skills, daily living skills, independent functioning, and communication and social skills.

*Social-emotional maturity* should be a major component of the educational evaluation process for a deaf or hard-of-hearing student. Communication problems that result from lack of access to meaningful language contribute toward the development of a child's personality and social/emotional adjustment. Emotional factors have a direct influence on the learning behavior of any child. Social-emotional evaluations examine a student's self-image, social/interpersonal skills, emotional adjustment, and life-style expectations.

In addition to other testing, if one or more of the following symptoms are noted, *screening for Usher Syndrome* is strongly recommended:

- balance problems
- decreased night vision

- gradual loss of visual field
- profound hearing loss from birth with balance problems
- moderately-severe hearing loss from birth with normal balance
- normal hearing at birth with progressive hearing loss beginning in childhood or the early teen years

Follow-up with qualified medical professionals would be needed to establish additional deafblind eligibility for appropriate programming.

<b>Areas of Psychological Evaluation</b> <i>(Tests Administered by the School Psychologists)</i>	
Areas of Assessment	Assessment Tools
<b><i>Cognitive/Intellectual</i></b>	<ul style="list-style-type: none"> <li>• <i>Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV)</i></li> <li>• <i>Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV)</i></li> <li>• <i>Wechsler Preschool and Primary Scale of Intelligence, Third Edition (WPPSI-III)</i></li> <li>• <i>Kaufman Assessment Battery for Children, Second Edition (KABC-II)</i></li> <li>• <i>Leiter International Performance Scale, Revised (Leiter-R)</i></li> <li>• <i>Comprehensive Test of Nonverbal Intelligence—II (CTONI-2)</i></li> <li>• <i>Universal Nonverbal Intelligence Test (UNIT)</i></li> </ul>
<b><i>Achievement</i></b>	<ul style="list-style-type: none"> <li>• <i>Woodcock-Johnson Tests of Achievement—Third Edition (WJ-III)</i></li> <li>• <i>Kaufman Test of Educational Achievement—Second Edition (KTEA-II)</i></li> <li>• <i>Stanford 10 Achievement Test (SAT-10)</i></li> </ul>
<b><i>Adaptive Behavior</i></b>	<ul style="list-style-type: none"> <li>• <i>Vineland Adaptive Behavior Scales</i></li> <li>• <i>Adaptive Behavior Assessment System, Second Edition (ABAS-II)</i></li> <li>• <i>Scales of Independent Behaviors—Revised (SIB-R)</i></li> </ul>

<b><i>Developmental (birth to 21)</i></b>	<ul style="list-style-type: none"> <li>• <i>Brigance Inventory of Early Development—Revised (selected tests)</i></li> <li>• <i>Bayley Scales of Infant Development-II</i></li> <li>• <i>Bracken Basic Concept Scale—Third Edition</i></li> </ul>
<b><i>Social/Emotional</i></b>	<ul style="list-style-type: none"> <li>• <i>Devereux Scales of Mental Disorders</i></li> <li>• <i>Conner's Rating Scales—Third Edition</i></li> <li>• <i>Behavior Rating Inventory of Executive Function (BRIEF)</i></li> <li>• <i>Piers-Harris Children's Self-Concept Scale, Second Edition</i></li> <li>• <i>Behavioral Assessment System for Children— Second Edition (BASC-2)</i></li> <li>• <i>Matson Evaluation of Social Skills—D/HH Version</i></li> <li>• <i>Minnesota Multiphasic Personality Inventory—Adolescent (MMPI-A)</i></li> <li>• <i>Thematic Apperception Test</i></li> <li>• <i>Children's Apperception Test</i></li> <li>• <i>Roberts Apperception Test</i></li> <li>• drawing projective tests (e.g., House-Tree-Person, kinetic family drawing, etc.)</li> </ul>
<b><i>Visual Perceptual Skills</i></b>	<ul style="list-style-type: none"> <li>• <i>The Beery-Buktenica Developmental Test of Visual-Motor Integration, Fifth Edition (VMI)</i></li> <li>• <i>Bender Visual Motor Gestalt II</i></li> <li>• <i>Test of Visual Perceptual Skills—Third Edition (TVPS-3)</i></li> </ul>

*This is not an exhaustive list and only select subtests from the above tests may be deemed appropriate for specific students. When in doubt, contact Outreach Services for Deaf and Hard-of-Hearing Children for consultation or for a free evaluation.*

## TESTS ADMINISTERED IN THE PRIMARY LANGUAGE AND PREFERRED LANGUAGE MODE

In order for results to truly reflect the abilities of the student, tests must be provided and administered in the student's primary language and preferred mode of communication. While this may mean the evaluation is administered in Spanish or Urdu, the preferred language mode of a deaf or hard-of-hearing student may also be American Sign Language. The important issue is that the student's preferred language

mode and family choices, which may be signed or spoken (with or without the support of signs or cues), must be respected. In doing so, the student's primary language and preferred language mode should be used throughout the educational evaluation.

If assessing a student's verbal abilities and using an interpreter, there are challenges (e.g., errors in translation from examiner to student and vice versa). Test translations often result in significant changes in the underlying psychological constructs assessed by the translated version, altering test validity and possibility resulting in errors leading to serious consequences when decisions are made on inaccurate translations.

Formerly, best practices recommended only nonverbal tests for deaf or hard-of-hearing children due to concerns about validity. However, verbal intelligence is a better predictor for academic achievement for all children. Verbal assessments can assist in identifying deaf or hard-of-hearing children with verbal strengths or weaknesses. Validity concerns need to be considered by the examiner for test administration and interpretation.

## **STATEWIDE RESOURCES AND SERVICES FOR DEAF AND HARD-OF-HEARING STUDENTS IN INDIANA (*updated November 2013*)**

For some of their educational evaluation needs, local educational agencies may decide to refer deaf and hard-of-hearing students to the Center for Deaf and Hard-of-Hearing Education (CDHHE) at the Eliza Willard Assessment Center, located on the campus of the Indiana School for the Deaf in Indianapolis, Indiana.

The Center for Deaf and Hard of Hearing Education (CDHHE) was established in 2012 with the purpose: "to support parental choice, including the full continuum of communication options (including American sign language, other forms of sign language, cued speech, listening and spoken language (oral), or any combination of these skills)" and with the goal "to ensure that children who are deaf and children who are hard of hearing acquire optimal language skills and academic abilities, regardless of the mode of communication used" (IC 20-35-11).

As part of transition plan duties determined in 2012, the professionals in CDHHE's Assessment Team provide testing of deaf and hard-of-hearing students in their major communication mode—sign language, spoken communication, or a combination. Referrals to CDHHE

are made for a variety of reasons, including program placement questions and challenges, concerns over lack of progress, behavioral challenges, specific educational problems, or a need for guidance for the case conference committee. Those referrals are provided by the director of special education at the local school level or their designee. The referral form may be found on the CDHHE website at [www.in.gov/isdh/25883.htm](http://www.in.gov/isdh/25883.htm).

**CDHHE partners with local educational and clinical professionals as well as with the parents to provide a complete evaluation of the student.**

The professionals in CDHHE can complete a file review of previous educational and medical records, test results already completed by the local schools, and other independent evaluations to determine the need for additional formal and informal testing, observation, and parent/guardian interview. Using recent audiological test results from the student's primary audiologist, spoken English evaluations from the school speech-language therapist, and academic testing provided throughout the school year will avoid duplication and save the child and family unnecessary testing. It also saves the time that is needed during the evaluation at CDHHE, allowing the time to be used to its best advantage for the child. The child's teachers are encouraged to be part of the educational evaluation completed at CDHHE and often provide information from a different perspective than the family, which might be difficult to obtain during a short-term evaluation. As in all successful educational evaluations, parents are an integral part of the team, providing important social, developmental, communication, and emotional information.

CDHHE offers a multidisciplinary team of professionals who are knowledgeable in the unique needs of deaf and hard-of-hearing students and who conduct an intensive diagnostic study of the child. The team collects information through formal and informal testing, observation analysis, and parent interviews. At the end of the evaluation, members of the evaluation team meet with the parents and school personnel to discuss the diagnostic findings and to outline an educational program based on the student's identified strengths and areas of need.

CDHHE services include audiological evaluations, ASL and English language communication evaluations, adaptive behavior evaluations, social/developmental histories, and psycho-educational evaluations including intelligence, achievement, academic skills, and personality. In order to determine the impact of the educational environment, CDHHE offers educational observations that can be an important component to the educational evaluation process.

## APPENDICES

### Making Progress: The One for One Rule

By Cheryl Johnson

*Colorado Department of Education, Deaf/Hard of Hearing Consultant  
Hands and Voices Board President*

From [www.handsandvoices.org](http://www.handsandvoices.org)

Colorado continues to rank as one of the highest states for inclusion of all of its special education students and is second highest in inclusion for students who are deaf or hard of hearing. The most recent Office of Special Education Programs (OSEP) report indicates that in 2003, 66.5% of students in Colorado with hearing disabilities received the majority of their education (more than 80% of the time) in the general education classroom. However, this practice is not necessarily the right or best placement for all DHH students. While our goal should be achievement equivalency between hearing and deaf/hard of hearing students, getting there is the problem. As we continue to struggle through the differences between least restrictive environment and language rich environment, we should keep in mind that the child's progress, or lack thereof, should help guide the decision between the different placement and/or service options. Without the basic prerequisite skills and ongoing support, the inclusion model fails too many children.

Furthermore, students should not be considered for inclusion if their language skills are not at least within two years of the instructional level of the classroom. The difficulty experienced by a DHH student when s/he must frequently fill in gaps for incomplete reception of information is exacerbated when their vocabulary and language reserve is limited. This difficulty is multiplied by the rapid pace of instruction, especially in the upper levels.

At a minimum, every child who is deaf or hard of hearing, given no additional learning or language issues, should be making, on average, one year's growth in a one-year period. Now I recognize that some children have growth spurts and plateaus at different times, but this rule of thumb should hold over time. If the student is not making that rate of progress, the services, including the placement, the instruction and the accommodations, must be questioned, evaluated and, when necessary, adjusted. At a minimum, IEP services should be constructed to support this rate of growth. Providing a program that promotes the "One for One" rule represents basic services, not a "Cadillac" or optimal model.

Included in this article is a reprint of a response to a letter by Ruth Mathers, a former deaf education teacher from Denver Public Schools. She identifies her top four strategies for supporting students who are deaf and hard of hearing to be more successful in their education program. I think you will find my thoughts reinforced by her words of wisdom.

## GLOSSARY

This glossary is included to provide clear definitions and descriptions of the terms used in the educational evaluation of children who are deaf and hard-of-hearing.

**Acoustics:** pertaining to sound, the sense of hearing, or the science of sound

**Acoustic room treatment:** the use of sound-absorbing materials (such as carpets and acoustical tile) to reduce room noise and reduce the signal-to-noise ratio, thus enhancing the usefulness of hearing aids and other listening devices

**Acquired hearing loss:** a hearing loss that is not present at birth; sometimes referred to as an adventitious loss

**Air conduction (AC):** sound from the air delivered through the ear canal, the eardrum, and middle ear to the inner ear

**Ambient noise:** background noise that competes with the main speech signal

**American Sign Language (ASL):** a visual/gestural language used by Deaf people in the United States and Canada, with semantic, syntactic, morphological, and phonological rules that are distinct from English

**Amplification:** the use of hearing aids and other electronic devices to increase the loudness of sound so that it may be more easily received and understood

**Assistive listening devices (ALDs):** any and all types of electronic hearing aids, including personal aids, FM systems, infrared systems, special input devices for telephone or television, amplified alarms and signals, etc.

**Audiogram:** the graph on which a person's threshold (loudness level at which a person just perceives a sound) is plotted for different frequencies (i.e., pitches)

**Audiological educational evaluation:** a hearing test that consists of pure-tone threshold identification, acoustic impedance measurements, as well as speech recognition and speech discrimination assessment, to describe the type and degree of hearing loss of an individual

**Audiologist:** a specialist in hearing who holds a degree in audiology and provides evaluation and rehabilitation services to persons with hearing loss.



**Auditory neuropathy/dysynchrony:** a hearing loss that is present in the hearing system beyond the outer hair cells of the cochlea. A person with auditory neuropathy/dysynchrony has difficulty at a higher level in the auditory system. Students with this diagnosis appear to hear sounds, yet have varying abilities in understanding the sounds available to them. Individuals with auditory neuropathy do not present with one single profile. Just as there is a range of hearing levels with sensorineural hearing loss, there is also a range of functioning with auditory neuropathy. While students may “hear” sounds, they may not necessarily make sense of sound for communication. Abilities to understand sound have been noted to fluctuate. Some students with this condition may demonstrate improvement in their ability to understand sound related to maturation of the auditory system; however, for others the condition is permanent. People with auditory neuropathy may have normal hearing or hearing loss ranging from mild to severe. They often have poor speech-perception abilities, which mean they have trouble understanding speech clearly. A person with auditory neuropathy may be able to hear sounds, but has difficulty recognizing spoken words. Sounds may fade in and out for these individuals and seems out of sync. (National Institute on Deafness and Other Communication Disorders, 2005)

**Auditory/oral:** a communication methodology that encourages children to make use of the hearing they have (i.e., residual hearing) through the use of appropriate technology (e.g., hearing aids, cochlear implants, FM systems) and educational intervention. While many auditory/oral educational programs have a strong “auditory” component, the use of vision (e.g., speechreading/lipreading) may be used to supplement speech information that may or may not be available through residual hearing. In this approach, children learn to listen and speak and do not learn sign language.

**Auditory training:** the process of training a person to use their residual hearing for the recognition, identification, and interpretation of sound

**Auditory/verbal education:** the development of speech and verbal language through maximized use of residual hearing

**Aural habilitation/rehabilitation:** training designed to help an individual with a hearing loss to make productive use of residual hearing and that may or may not include training in speechreading/lipreading

**Bicultural:** membership in two cultures, such as deaf culture and hearing culture

**Bilateral vs. unilateral:** bilateral hearing loss means both ears are affected; unilateral hearing loss means only one ear is affected

**Bilingual:** being fluent in two languages; for some deaf children this will include the use of ASL and English

**Bilingual-bicultural:** the establishment of an environment in which ASL and English (through print) are utilized so that the deaf and hard-of-hearing child has full visual access to both languages. ASL is used for language acquisition and instruction and printed English is used for literacy development.

**Bone conduction:** sound received through the vibration of the bones of the skull

**C-Print:** a speech-to-text system developed at the National Technical institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT) as an access service option for some deaf and hard-of-hearing students in educational environments. Printed text of spoken English is displayed in real time, an effective means of acquiring information for some individuals who are deaf or hard of hearing.

**Captionist:** the person who provides real-time captioning for a student using either C-Print or CART

**CART** (Communication Access Realtime Translation): instantaneous translation of the spoken word into English text using a stenotype machine, notebook computer and realtime software with a display of the text on a laptop computer, monitor or screen; CART service is often provided in classroom settings for students who are deaf or hearing of hearing

**Central auditory processing dysynchrony (CAPD):** a condition that affects a person's ability to decode the sounds they hear. CAPD, however, appears to result from a dysfunction in the centers of the brain that process sound. Auditory neuropathy (AN) is different from CAPD in that the problem in AN appears to actually lie in the hearing system. Depending on how severe this condition is, students may require educational programs that include the use of sign language.

**Cochlear implant:** an electronic device surgically implanted to stimulate nerve endings in the inner ear (i.e., cochlea) in order to receive and process sound and speech

**Conductive hearing loss:** a hearing loss caused by a problem in the outer or middle ear; sound has difficulty being "conducted" to the nerves in the inner ear. In a purely conductive hearing loss, the actual nerves of

hearing are intact and ready to accept incoming sounds. Sound, however, does not adequately reach these nerves as something is blocking the sounds from being adequately “conducted” to the nerves, and sounds are heard at a reduced level. The amount of loss depends on the nature of the problem that is causing the sound conduction issue.

**Configuration of loss:** the extent of hearing loss at each frequency and the overall picture of hearing that is created. For example, a hearing loss that only affects the high frequencies would be described as a high-frequency loss. Its configuration would show good hearing in the low frequencies and poor hearing in the high frequencies. On the other hand, if only the low frequencies are affected, the configuration would show poorer hearing for low tones and better hearing for high tones. Some hearing loss configurations are flat, indicating the same amount of hearing loss for low and high tones.

**Congenital hearing loss:** a hearing loss that is present at birth or that is associated with the birth process or that develops in the first few days of life.

**Consultation:** a process based upon an equal relationship characterized by mutual trust and open communication, joint approaches to problem identification, the pooling of a personal resources to identify and select strategies that will have some probability of solving the problem that has been identified, and shared responsibility in the implementation and evaluation of the program or strategy that has been initiated.

**Cued Speech:** In this system, children learn to both “see” and “hear” spoken language. They focus on the movements that the mouth makes when one talks. This is combined with: (a) eight hand shapes indicating groups of consonants and (b) four positions around the face, indicating vowel sounds. Some sounds look alike on the lips—such as “b” and “p”—and others cannot be seen on the lips—such as “k”. The hand cues help the child tell what sounds are being voiced.

**Deaf:** a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance. The term means that the person’s communication mode is visually based (either sign language or speechreading). Residual hearing (if any) may be a secondary and supplemental sensory avenue; vision is often the major channel for receiving information.

**Deafblind:** educationally significant loss of vision and hearing

**Deaf community:** the community of people whose primary mode of communication is signed language and who share a common identity, a common culture, and a common way of interacting with each other and the hearing community

**Deaf studies:** the study of the history, culture, language, and literature of the deaf and the cross-cultural relationship between the deaf and hearing communities

**Decibel (dB):** the unit of measurement for the loudness of sound. The higher the dB, the louder the sound.

**Degree of hearing loss:** Degree of hearing loss refers to the severity of the hearing loss. Seven categories are typically used. The numerical values are based on the average of the hearing loss at 3 frequencies, 500 Hz, 1000 Hz, and 2000 Hz in the better ear without amplification. Some people may use slightly smaller or slightly larger numbers for each of the following categories:

- Normal range = -10 to 15 dB
- Slight Loss/Minimal loss = 16 to 25 dB
- Mild Loss = 26 to 40 dB
- Moderate loss = 41 to 55 dB
- Moderate/severe loss = 56 to 70 dB
- Severe loss = 71 to 90 dB
- Profound loss = 91 dB or more ([www.ASHA.org](http://www.ASHA.org))

**Ear mold:** a custom-made plastic or vinyl piece that fits into the outer ear to interface with a hearing aid

**Educational interpreter:** a professional member of the educational team, fluent in the languages used by deaf and hearing persons, who works with the team to implement the IEP. The educational interpreter uses sign language/communication systems and spoken languages in public school settings for the purpose of providing access to the general curriculum, classroom dynamics, extracurricular activities, and social interactions. This team member must document appropriate academic training, demonstrate the interpreting competencies and knowledge sets necessary to provide quality interpreting services in public schools, and be appropriately credentialed through state and/or national evaluation systems.

**English sign systems:** sign systems developed for educational purposes that use manual signs in an English word order, sometimes with added affixes that are not present in ASL. Some of the signs are borrowed from

ASL, and others have been invented to represent elements of English visually. Signing Exact English (SEE) and Seeing Essential English (SEE) are two examples of invented systems. SEE is not a language.

**Fingerspelling:** representation of the alphabet by finger positions in order to spell out words or longer strings of language

**Fluctuating vs. stable hearing loss:** Some hearing losses change—sometimes getting better, sometimes getting worse. Such a change commonly occurs in young children who have hearing loss as a result of otitis media or fluid in the middle ear. Other hearing losses will remain the same year after year and would be regarded as stable.

**FM system:** an assistive listening device that transmits the speaker's voice to an electronic receiver in which the sound is amplified and transmitted to the student's ears via small earphones on the student's personal hearing aids. The device reduces the problems of background noise interference and distance from the speaker.

**Frequency:** the number of vibrations per second of a sound. Frequency, expressed in Hertz (Hz), determines the pitch of sound.

**Full inclusion:** All students, regardless of disability, are in a general education classroom/program full time. All services are provided to the child in that setting.

**Gesture:** movement of any part of the body to express or emphasize an idea, an emotion, or a function. Not part of a formal communication system.

**Hard-of-hearing:** the condition of having hearing loss, whether permanent or fluctuating that adversely affects a child's educational performance but which is not included under the definition of "deaf" in this section. The person's linguistic development is primarily auditorily based, with vision serving as a secondary and supplemental channel. No satisfactory definition has been drawn between deaf and hard-of-hearing, other than a behavioral one, because hearing loss exists on a continuum and is influenced by many other external factors.

**Hearing impaired:** terminology that has been used to refer to persons with any degree of hearing loss, from mild to profound, including deaf or hard-of-hearing persons. This term is losing acceptance by Deaf persons and some hard-of-hearing persons because of the implications of the term "impaired".

**Hearing loss:** Hearing loss was originally defined in medical terms before the development of modern audiology. Today, professionals tend to use

the consistent, research-based terminology of audiology as well as the less-defined educational and cultural descriptions.

*Audiometric:* The following numerical values are based on the average of the hearing loss at three frequencies (500 Hz, 1,000 Hz, and 2,000 Hz) in the better ear without amplification. The numerical values for the seven categories vary from author to author.

Normal hearing (-10 dB to 15 dB)

Slight loss (16 dB to 25 dB)

Mild loss (26 dB to 40 dB)

Moderate loss (41 dB to 55 dB)

Moderate/severe loss (56 dB to 70 dB)

Severe loss (71 dB to 90 dB)

Profound loss (91 dB or more)

*Educational:* Any degree of hearing loss may limit full communicative access to educational opportunities in most schools without appropriate support.

*Culturally Deaf:* shared language, values, and beliefs of many deaf people. (See "Deaf community.") Deaf cultures groups vary by religion, age, socioeconomic level, and education.

**Hearing screening:** an audiometric test of the ability to hear selected frequencies at intensities above the threshold of normal hearing. The purpose of the screening is to identify (with minimal time expenditure) individuals with significant hearing loss and to refer them for further testing.

**Individualized education program (IEP):** a team-developed, written program that identifies education and therapeutic goals and objectives needed to appropriately address the educational needs of a student with disability.

**Inclusion:** a commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend if not disabled. It involves bringing the support services to the child and requires only that the child will benefit from being in the class. The general education teacher takes primary responsibility for the student's education.

**Individualized family service plan (ISFP):** a team-developed, written plan for infants and toddlers that addresses: (1) the assessment of strengths and needs and the identification of services to meet such needs; (2) the assessment of family resources and priorities and the identification of supports and services necessary to enhance the capacity of the family to meet the developmental needs of the infant or toddler with a disability;

and, (3) a written individualized family service plan developed by a multidisciplinary team including the parent or guardian.

**Intensity:** the loudness of a sound measured in decibels (dB)

**Interpreter or transliterator for the Deaf:** a person who facilitates communication between hearing and deaf or hard-of-hearing persons through the interpretation of English into a signed language (e.g., American Sign Language), the signed language into English, or the transliteration of a language into a visual/phonemic code by an oral interpreter or Cued Speech interpreter. The *educational interpreter* specializes in classroom interpreting.

**Intervener:** a paraprofessional who is specially trained to work with deafblind children. This person is responsible for facilitating access to environmental information usually gained through vision and hearing, assisting with the development of receptive and expressive communication skills, and fostering a trusting relationship with the child that promotes social and emotional well-being.

**Itinerant teacher:** a teacher who generally provides direct services to students and consultation services to classroom teachers and staff. The itinerant teacher may provide services in the general education classroom or on a pullout basis, usually one-on-one. The level of service that the itinerant teacher provides varies from everyday to once a month. An itinerant teacher typically works in more than one school and often in more than one district.

**Language or speech impairment:** one or more of the following communication impairments that adversely affect educational performance: articulation impairment, including omissions, substitutions, or distortions of sound, persisting beyond the age at which maturation alone might be expected to correct the deviation; voice impairment, including abnormal rate of speaking, speech interruptions, and repetition of sounds, words, phrases, or sentences that interferes with effective communication; one or more language impairments (e.g., phonological, morphological, syntactic, semantic, or pragmatic use of aural/oral language) as evidenced by both a spontaneous language sample demonstrating inadequate language functioning and test results on not less than two standardized educational evaluation instruments, or two subtests designed to determine language functioning, which indicates inappropriate language functioning for the child's age.

**Least restrictive environment (LRE):** a basic principle of the Individuals with Disabilities Education Act (IDEA) that requires public agencies to establish procedures to ensure that, to the maximum extent appropriate, children with disabilities (including children in public or private institutions or other care facilities) are educated with children who are not disabled and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

**Mainstreaming:** Generally, mainstreaming refers to the selective placement of special education students in one or more general education classes. Special education supports may be provided in the general education classroom or in the special education classroom.

**Mixed hearing loss:** a combination of characteristics associated with both a conductive loss and a sensorineural loss. The extent of the conductive and sensorineural components of each mixed loss will determine the overall implications of that loss. With a mixed hearing loss, the conductive component of the hearing loss may resolve with medical attention, leaving only a sensorineural hearing loss.

**Morpheme:** a linguistic unit of relatively stable meaning that cannot be divided into smaller meaningful parts

**Native language:** the language used in a child's home (The native language of children who are deaf with parents who are deaf is often ASL.)

**Ophthalmologist:** a physician specializing in the treatment of diseases of the eye

**Oral education:** a philosophy of teaching deaf or hard-of-hearing individuals to make efficient use of residual hearing through the early use of amplification, to develop speech, and to use speechreading skills

**Oral interpreter:** a person who communicates the words of a speaker or group of speakers to an individual who is deaf by inaudibly mouthing what is said so that it can be read on the lips

**Otitis media:** an infection of the middle ear. Children with hearing loss have a higher incidence of otitis media than the rest of the population. Children with recurrent attacks may have fluctuating hearing loss and be somewhat at risk for acquiring permanent hearing loss.

**Otologist:** a physician who specializes in medical problems of the ear



**Postlingually deaf:** hearing loss acquired after learning a first language

**Pragmatics:** the appropriateness of language used for the situation, the speaker, and the audience, in regard to logic and validity

**Prelingually deaf:** hearing loss that is present at birth, or shortly thereafter, and occurs prior to the acquisition of language

**Progressive vs. sudden hearing loss:** a hearing loss that becomes increasingly worse over time. A sudden hearing loss is one that has an acute or rapid onset and therefore occurs quickly, possibly caused by head trauma, a tumor on the auditory nerve, or large vestibular aqueduct syndrome (LVAAS).

**Residual hearing:** the amount of usable hearing that a deaf or hard-of-hearing person has

**Reverberation:** prolongation (i.e., continuation) of a sound after the sound source has ceased. The amount of reverberant energy in a room depends on the absorption quality of the surface of the walls, floor, and ceiling.

**Rochester Method:** a mode of communication in which spoken English is supplemented with simultaneous fingerspelling of each spoken word

**Seeing Essential English (SEE):** a communication system that was designed to use ASL signs plus invented signs to represent both root words and the inflectional system of English

**Semantics:** the use in language of meaningful referents, in both word and sentence structures

**Sensorineural hearing loss:** a hearing loss that is caused by damage to some or all of the nerves in the cochlea of the inner ear. The hearing loss is permanent and generally cannot be reduced or eliminated by surgery. Sensorineural hearing loss causes both distortion and decreased loudness of sounds. This occurs because some or all of the hair cells or nerves in the inner ear that are responsible for sensing sounds of different pitches are damaged. The extent of hair cell and nerve damage will cause the degree and configuration of hearing loss to vary.

**Signed English:** a communication system that was devised as a semantic representation of English for children between the ages of 1 and 6 years of age. ASL signs are used in an English word order, with 14 sign markers added to represent a portion of the inflectional system of English. (See "Invented English sign systems.")

**Signing Exact English (SEE):** See "Invented English sign systems."

**Signal-to-noise ratio:** the difference in the intensities of the speech signal (such as the teacher's voice) and the ambient (i.e., background) noise

**Simultaneous Communication:** a method of communication in which people sign and speak English at the same time

**Speechreading:** the interpretation of lip and mouth movements, facial expressions, gestures, prosodic, and melodic aspects of speech, structural characteristics of language and topical and contextual cues

**Speech perception:** the ability to recognize speech stimuli presented at suprathreshold levels (i.e., levels loud enough to be heard)

**Speech intelligibility:** the ability to be understood when using speech

**Speech and language specialist/pathologist/therapist:** a professional who works with individuals who have specific needs in the area of speech and language

**Syntax:** defines the word classes of language (i.e., nouns, verbs, etc.) and the rules for their combination (i.e., which words can be combined, and in what order to convey meaning)

**Standards:** grade-level expectations for students. Content standards are designed to encourage the highest achievement of every student by defining the knowledge, concepts, and skills that students should acquire at each grade level.

**Symmetrical vs. asymmetrical hearing loss:** Symmetrical hearing loss means that the degree and configuration of hearing loss are the same/similar in each ear. An asymmetrical hearing loss is one in which the degree and/or configuration of the loss is different in each ear.

**Total Communication:** a philosophy of communication that employs whatever components of oral and manual communication including sign, lipreading, finger spelling, use of residual hearing, speech, and sometimes Cued Speech, depending upon the needs of the student

**Transition:** This term is used in two situations. The first is when the students are moving into the school system at age 3. The other use is for a coordinated set of activities that may address, among others, the assessment, planning process, educational and community experiences for youth with disabilities as they turn age 14. The intent of transition is to create opportunities for youth with disabilities that result in positive adult outcomes for life, including raising expectations, assessing interests, utilizing community supports, becoming involved in school and community activities, and fostering leadership development.

**Transliterating:** the process of facilitating communication between persons who are hearing and persons who are deaf or hard-of-hearing. In this form of interpretation, the language base remains the same: the transliteration of spoken English to a signed English system or to a form that can be read on the lips.

**Unilateral hearing loss:** can be a mild to profound loss of hearing in one ear. Unilateral loss adversely affects the educational process in a significant percentage of students who have it.

**Universal Design for Learning:** Using the knowledge that has been gained from brain research coupled with significant improvements in technology, universal design for learning calls for more flexibility and diversity in teaching to accommodate different styles and modes of learning. It provides access for students to practice skills and strategies using a variety of media and improves the accuracy and meaningfulness of the assessment of student learning. (Rose, Meyer, and Hitchcock, 2005)

**Videophone (VP):** phones that transmit a moving video image of the person communicating, allowing people who sign to communicate directly with others who sign

**Video relay service (VRS):** phone operator who relays a phone call between someone who is signing into a video phone and someone who is speaking into a telephone

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## CHECKLIST OF EVALUATION CONSIDERATIONS

Student: \_\_\_\_\_ Case Conference Date: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Checklist Date: \_\_\_\_\_

Purpose of Evaluation (concerns to be addressed):		
<hr/> <hr/> <hr/>		
Language Considerations:		
<u>Primary Language</u> <input type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> Not Known <input type="checkbox"/> American Sign Language (ASL) <input type="checkbox"/> Other: _____		
<u>Estimated Language Competency</u> <input type="checkbox"/> Average or above <input type="checkbox"/> Mild Delay <input type="checkbox"/> Moderate Delay <input type="checkbox"/> Profound Delay		
<u>Preferred Mode of Communication</u> <input type="checkbox"/> Spoken <input type="checkbox"/> ASL <input type="checkbox"/> S.E.E. <input type="checkbox"/> Other: _____		
Background Information to be Gathered:		
<ul style="list-style-type: none"> <li>Primary language and preferred mode of communication</li> <li>Family history, including home language and cultural factors</li> <li>Health status</li> <li>Developmental history</li> <li>Educational history</li> </ul>	<ul style="list-style-type: none"> <li>Hearing status of family members</li> <li>Etiology of hearing loss</li> <li>Age of onset and diagnosis of hearing loss</li> <li>Type and severity of hearing loss</li> <li>Effectiveness of amplification</li> <li>Auditory skills; use of residual hearing</li> </ul>	<ul style="list-style-type: none"> <li>Visual skills</li> <li>Additional diagnosis or suspected eligibilities for special education</li> <li>Parent knowledge and need for support</li> <li>Attitude and motivation level of the student</li> </ul>
Parent Participation:		
<ul style="list-style-type: none"> <li>Observations</li> <li>Medical history</li> <li>Audiological history</li> <li>Educational information</li> <li>Elicit play during educational evaluation</li> <li>Complete developmental scales</li> </ul>	<ul style="list-style-type: none"> <li>Career/vocational interests/skills inventories</li> <li>Situational evaluations for transition</li> <li>Independent living skills evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Assistive technology educational evaluations</li> <li>Gathering of other appropriate information, such as grades and portfolios</li> </ul>

Professional Personnel:		
<ul style="list-style-type: none"> <li>○ Teacher of deaf and hard-of-hearing students</li> <li>○ School psychologist</li> <li>○ Audiologist</li> <li>○ Reading specialist</li> </ul>	<ul style="list-style-type: none"> <li>○ Speech and language pathologist</li> <li>○ American Sign Language (ASL) specialist</li> </ul>	<ul style="list-style-type: none"> <li>○ Early childhood specialist</li> <li>○ Occupational therapist</li> <li>○ Physical therapist</li> </ul>
Areas to Be Evaluated:		
<ul style="list-style-type: none"> <li>○ Audiology</li> <li>○ Language/Communication Mode</li> <li>○ Pre-academic/Academic Skills</li> <li>○ Motor Skills</li> <li>○ Psychological Areas</li> </ul>		

Notes: